

Reply Under 37 CFR 1.116  
Expedited Procedure  
Technology Center 3744

Application No.: 10/541,803

Docket No.: 29171/39318A

**REMARKS**

Prior to entry of this Supplemental Response, each of claims 1-24 remains pending in this application, with claims 1 and 10 being independent claims, and claims 7 and 15-24 being withdrawn. With this Response, Applicants cancel each of withdrawn claims 7 and 15-24. In view of the amendments above and the remarks below, Applicants respectfully request reconsideration and favorable action in this case.

**35 U.S.C. § 112 Rejections, First Paragraph**

Each of claims 1-6 and 7-14 stands rejected under 35 U.S.C. § 112, first paragraph, as allegedly failing to comply with the written description requirement. The Office alleges that “there are at least some intersections in the disclosed invention in which the second outgoing flow is parallel to the first outgoing flow, not orthogonal as claimed.” Advisory Action at page 2. Applicants respectfully submit that the pending claim language does not require that **every** intersection having a second outgoing flow orthogonal to the first outgoing flow.

Pending claim 1, for example, is directed to a unit element for a heat sink and recites, in part, a series of inlet tubes, a series of outlet tubes, and **a plurality** of flow branch points...each (i.e., each of the plurality of flow branch points) formed by the intersection of two or more of the inlet or outlet tubes, wherein each of the intersections (i.e., each of the intersections corresponding to the plurality of flow branch points) is defined by an incoming flow, a first outgoing flow perpendicular to the incoming flow, and a second outgoing flow orthogonal to the first outgoing flow. Applicants note that by reciting **a plurality** of branch points formed by the intersection of two or more of the inlet or outlet tubes, which intersections have certain features and/or configurations, the claim language does not require that the recited features and/or configurations apply to **all** of the intersections in the claimed apparatus. Instead, the claim language requires only that the recited features and/or configurations apply **to the intersections corresponding to the plurality of flow**

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**branch points**, which also need not include **all** of the flow branch points in the apparatus. That is, claim 1 would read on an apparatus having **two** (i.e., a plurality of) flow branch points and two corresponding intersections that have the first outgoing flow perpendicular to the incoming flow and the second outgoing flow orthogonal to the first outgoing flow, even if the apparatus has other flow branch points and other intersections that do not have a second outgoing flow orthogonal to a first outgoing flow. Applicants respectfully submit that claim 1 fulfills the written description requirement, and request the Office to withdraw this rejection and allow this claim.

Applicants respectfully submit that Office should withdraw the rejection of independent claim 10 under 35 U.S.C. § 112, first paragraph, for at least similar reasons to those described above with respect to claim 1. Specifically, claim 10 is directed to a heat sink and recites, in part, a plurality of tubes in fluid communication with one another through a plurality of respective intersections (**which need not include every intersection in the heat sink**), wherein, for each of the plurality of intersections, a first outgoing tube is perpendicular to the incoming tube and a second outgoing tube is orthogonal to the first outgoing tube. Accordingly, the Applicants respectfully submit that claim 10 fulfills the written description requirement, and request the Office to withdraw this rejection and allow this claim.

Applicants note that while the distinction described above was not specifically addressed in the Applicants' prior response to the rejection under 35 U.S.C. § 112, first paragraph, the Applicants briefly made the distinction in the response to the rejections under 35 U.S.C. § 103. Accordingly, the Applicants respectfully request the Office to reconsider the allowability of claims 1-6 and 7-14.

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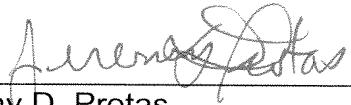
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**CONCLUSION**

Accordingly, all remaining claims are in condition for allowance for the reasons provided above. Although Applicants believe that no fees or petitions are due, the Commissioner is hereby authorized to charge any fees or credit any overpayments to Deposit Account No. 13-2855 of Marshall, Gerstein & Borun, LLP under Order No. 29171/39318A. Should the Examiner wish to discuss any of the foregoing comments or any claim amendments deemed needed to result in allowance, Applicants kindly request the Examiner to contact the undersigned by telephone at the number given below.

Respectfully submitted,

Dated: January 24, 2011

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